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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,933	08/20/2003	Kazuya Katoh	4592-004	6950

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EXAMINER

MCCLENDON, SANZA L

ART UNIT PAPER NUMBER

1711

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/643,933

Applicant(s)

KATOH ET AL.

Examiner

Sanza L. McClendon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 32-39 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 32-39 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. In response to the Amendment received on June 22, 2005, the examiner has carefully considered the amendments. The examiner acknowledges the cancellation of claims 1-31 and the addition of new claims 32-39. The claim rejection under 35 U.S.C. § 112, 2nd paragraph for claims 2 and 8 have been overcome by the amendment and has hereby been withdrawn for consideration.

***Response to Arguments***

2. Applicant's arguments filed June 22, 2005 have been fully considered but they are not persuasive. Applicant is relying on the arguments to overcome the rejection under 35 USC 103(a) by Miyajima et al (5,389,437) in view of Alahapperuma et al (6,742,065). The examiner acknowledges the exhibits the guidance to the examples of the disclosure. The primary arguments are that the copolymer of Miyajima et al fails to have the required Tg and the combination of references is improper. The examiner respectfully disagrees. While the Tg of Miyajima et al, according to applicant, is not within the claimed ranges, it is not the Tg of the individual components in the composition that applicant is claiming it is the Tg of the overall PSA. There is no argument regarding the total PSA Tg. Additionally, applicant argues that Alahapperuma et al is combinable with the primary reference since they are teaching two different types of adhesives, i.e., tackifiable and detackifiable. However, the Alahapperuma reference is used to show that urethane (meth) acrylates are known in adhesive compositions and that the urethane (meth) acrylates are known to change the properties of the (meth) acrylic ester/(meth) acrylic acid copolymers when added—see Alahapperuma et al column 7, lines 14-40. Therefore, the examiner deems that it is within ordinarily skilled artisans knowledge that urethane (meth) acrylate polymers help change the properties of acrylic copolymers. Therefore, the examiner deems the combination is proper. And since the Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether Applicant's composition differs and, if so, to what extent, from the discussed combined references. Therefore, with the showing of the reference, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants. The combination is still deemed to render applicant's invention obvious in absence of evidence to the contrary and/or unexpected results.

*Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 32-39 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Miyajima et al (5,389,437) in view of Alahapperuma et al (6,742,065).

Miyajima et al teaches pressure sensitive adhesives sheets, labels, and laminates utilizing a specified pressure sensitive adhesive layer. Said pressure sensitive adhesive comprises an acrylic copolymer prepared by copolymerization of components (A) – (D) as defined in the disclosure. Said acrylic copolymer comprises component (A) provides a functional group within the polymer and can be found in compounds from at least .01 to 20 weight percent in the copolymer. In addition, Miyajima et al teaches 50 weight% of component (D) can be replaced with a copolymerizable monomer as found in column 9, lines 15-33, wherein these can be found to add functionality to the copolymer also. Therefore claim 6 appears to be taught by the reference. In addition to the copolymer a crosslinking agent can be added to improve the properties of said PSA—see column 10, lines 5-6 for examples. The isocyanate and epoxy compounds appear to read on applicant's component (B) in claim 4. Therefore, it is deemed that the Tg and the shear modulus of said PSA composition is inherently the same as applicant's since the adhesives are the same, that is an (A) (meth) acrylate copolymer and (B) an thermosetting agents, in this case the crosslinkers and thus, with the showing of the reference, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

Miyajima et al teaches said PSA can be used to provide surface protection when applied to polycarbonate substrates. Miyajima et al teaches can be applied to plastic sheets to make laminates having PSA layers on them, which appear to read on claims 7-8, wherein it is taught that the film substrate can be modified to provide a layer for better adhesive between the substrate and the film—see column 10, lines 30-35. Said plastic substrate sheets can be found in column 10, lines 50-60, wherein these appear to read on the film

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substrates having a Modulus of at least 1 GPa or more; and since the Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether Applicant's film substrates differs and, if so, to what extent, from the discussed reference, those substrates taught by Miyajima et al are deemed to inherently have the same Young's Modulus of 1Gpa of above as defined in the claims; therefore, with the showing of the reference, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

Per Table 1, Miyajima et al shows that the adhesive compositions are applied to a polyester sheet and evaluated for the initial peel strength from a polycarbonate plate, wherein said PSA composition comprises an acrylic copolymer and a crosslinking agent. The examiner is aware that said initial peel values are outside applicant's claimed range values, however Alahapperuma et al teaches that addition of a urethane (meth) acrylate oligomer can reduce the peel adhesion of an acrylic PSA. Alahapperuma et al teaches PSA protection sheets for silicon wafer production. Said PSA comprises an acrylic copolymer. Alahapperuma et al and Miyajima et al are analogous art because that is from the same field of endeavor that is the acrylic PSA art. Therefore, the examiner deems that an ordinarily skilled artisan could have prepared a PSA composition comprising an (meth) acrylate copolymer, as taught by Miyajima et al, and a urethane acrylate oligomer, as taught by Alahapperuma et al, which has an adhesion to polycarbonate within applicant's claimed range. The motivation would have been a reasonable expectation of lowering the adhesive peel force to a polycarbonate substrate about 5 times with the addition of a polyurethane (meth) acrylate oligomer as taught by Alahapperuma et al. The examiner is interpreting the reduction in adhesion based on the teaching of Alahapperuma et al per column 8, lines 46-55, which states the adhesion of the acrylic copolymer PSA is from 200 gm/25mm to 1000 gm/25mm is reduced to 5 gm/25mm to about 50 gm/25mm, which is a five times reduction. It is deemed that the combination of references reads on the instantly claimed invention, therefore claims 8 is deemed to be inherent to the combination of references also in the absence of evidence and/or unexpected results.


#### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L. McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sanza L. McClendon  
Examiner

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